

Staff Position on the Compatibility Category for the Definition of *Byproduct Material*

The staff has applied Management Directive 5.9, “*Adequacy and Compatibility of Agreement State Programs*,” (see Handbook 5.9, Part III) with the following results:

Question (1)—Do the essential objectives of the program element address a regulatory area reserved solely to the authority of the NRC? If the response to the question is “yes,” the compatibility category is “NRC.” If the response to the question is “no,” then proceed to Question (2).

Since the AEA explicitly authorizes States to regulate byproduct material under section 274b Agreements, the answer to this question is “no.”

Question (2)—Do the essential objectives of the program element address or define a basic radiation protection standard as defined by the Policy Statement or is it a definition, term, sign, or symbol needed for a common understanding of radiation protection principles? If the response to this question is “yes,” the compatibility category is “A.” If the response to the question is “no,” then proceed to Question (3).

The definition itself does not address or define a basic radiation protection standard. Further, it is not needed for a common understanding of radiation protection principles, since the radiation protection principles are independent of the source of radiation. There is one common set of radiation protection principles for both byproduct material and non-byproduct radioactive material. Therefore, the answer to this question is also “no.”

Question (3)—Do the essential objectives of the program element address or define an issue that has a significant, direct transboundary implication? If the response to this question is “yes,” the compatibility category is “B.” If the response to the question is “no,” then proceed to Question (4).

Even if an Agreement State chose not to define 11e.(3) byproduct material in its regulations, a direct and significant transboundary implication would not exist since such material does not require unique radiation safety handling or management practices (e.g., different training requirements, or different labeling requirements) and is currently addressed in existing NARM regulations. Said another way, in order for a significant direct transboundary implication to occur, an Agreement State definition of byproduct material that did not include 11e.(3) would have to require a licensee using 11e.(3) byproduct material to operate its radiation safety program using different radiation safety requirements than the NRC definition of byproduct material would require. However, the Agreement States already regulate 11e.(3) material under State regulations that cover both byproduct material as we know it today and NARM using the same radiation safety requirements. The amended definition of byproduct material does not change that approach. Therefore, the answer to the question is “no.”

Question (4)—Would the absence of the essential objectives of the program element from an Agreement State program create a conflict or gap? If the response to this question is “yes,” the compatibility category is “C.” If the response to the question is “no,” then the compatibility category is “D” and proceed to Question (5) to determine

whether the program element should be identified as having particular health and safety significance.

Gap is defined as - The essential objectives of NRC regulations or program elements are absent from the Agreement State program and an undesirable consequence is likely to result in another jurisdiction or in the regulation of agreement materials on a nationwide basis.

Conflict is defined as - The essential objectives of regulations or program elements are different and an undesirable consequence is likely to result in another jurisdiction or in the regulation of agreement material on a nationwide basis.

Note that the definitions of “gap” and “conflict” depend on an undesirable consequence in another jurisdiction or in the regulation of agreement materials on a nationwide basis. In other words, a conflict or gap may be thought of as an indirect, less significant form of a transboundary implication. A definition, however, specifies the meaning of a term only as that term is used in the regulations in which it appears. It does not impose any regulatory requirement on a licensee. If an Agreement State chose not to define 11e.(3) byproduct material, its absence would not create a gap, conflict or duplication on a nationwide basis because this material is currently regulated by the States under existing State regulations. Therefore, no gap or conflict would be created if the State did not adopt the amended definition of *byproduct material* in its regulations. Therefore, the answer to the question is “no.”

Question (5)—Would the absence of the essential objectives of the program element from an agreement state program create a situation that could directly result in exposure to an individual in excess of the basic radiation protection standards found in compatibility category A? If the response to this question is “yes,” the program element is not required for purposes of compatibility, but is identified as having particular health and safety significance.

If the answer to question 5 is no, then the proper categorization of the program element is “D.” Note here the question addresses the absence of the essential objectives from the entire state program as opposed to the State regulations. If the definition of *byproduct material* or another term (such as *radioactive material*) which encompasses all of the byproduct materials regulated by the State were not somewhere within the State program (i.e., in statute or in regulations) it is possible that some byproduct material could escape regulatory oversight with a result of exposure to an individual in excess of the Part 20 limits. The answer to this question is “yes,” and the proper categorization of the definition is “H&S.” The State regulatory program must include 11e.(3) and (4) byproduct material in its regulatory program if the Agreement includes such material.